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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 09/560,109 Confirmation No.: 3400  
First Named Inventor: Sallaway, Peter J. Filing Date: 28 April 2000  
Group Art Unit: 2734 Examiner: Tran, K.  
Atty. Docket No.: M-5628 US  
Title: Detector For A Gigabit Ethernet Receiver  
Assignee(s): National Semiconductor Corporation

Mountain View, California  
20 December 2004

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**INFORMATION DISCLOSURE STATEMENT  
FOR PLACEMENT IN PTO FILE**

Sir:

Pursuant to 37 CFR 1.56, 1.97, and 1.98, each document listed on the accompanying substitute PTO Form 1449 is called to the attention of the Examiner for the above patent application. A copy of each listed document is enclosed.

The two Ungerboeck documents are cited on page 11 of the (original) specification (page C10 of the corrected substitute specification). Raheli et al. and Hagenauer et al. are respectively cited on pages 32 and 46 of the specification (pages C30 and C44 of the corrected substitute specification). Lin et al. constitutes the relevant portion of Lin and Costello cited on page 43 of the specification (page C41 of the corrected substitute specification).

Citation of each listed document shall not be construed as:

1. an admission that the document is necessarily prior art with respect to the instant invention;
2. a representation that a search has been made; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 CFR 1.56(b).

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The Information Disclosure Statement ("IDS") submitted 8 January 2002 indicates that "English translations" of certain of the foreign patent documents accompanied that IDS. Applicants' Attorney is not presently able to determine the form or extent of those "English translations". In view of this, further enclosed is a copy of:

a. An English abstract of German Patent Publication DE 19626076 A1 cited in the 8 January 2002 IDS;

b. An English abstract of each of Japanese Patent Publications ("JPPs") 2-215236, 6-334692, 8-116275, 8-172366, 9-148944, and 9-153845 cited in the 8 January 2002 IDS; and

c. A computer translation into English of the specification and claims, with Japanese drawings, of each of the following Japanese patent documents:

c1. JPP 08-031819, the examined version of JPP 02-215236;

c2. Japanese Patent 3399019, the registered version of JPP 06-334692; and

c3. JPPs 08-116275, 09-148944, and 09-153845.

Taking note of the fact that the Internet website of the Japanese Patent Office ("JPO") provides the computer translation into English of a Japanese patent document as a group of computer-translated portions of the document, Applicants' Attorney assembled the five listed documents from the computer-translated portions of examined JPP 08-031819, Japanese Patent 3399019, and unexamined JPPs 08-116275, 09-148944, and 09-153845 available at the JPO's Internet website. In so assembling the listed documents, Applicants' Attorney inserted the document identification information at the beginning of each listed document, skipped a line between each pair of consecutive paragraphs, placed equations on separate lines as those equations appear in the original Japanese documents, capitalized the first letter of the first word in the first line of several paragraphs where the capitalization was previously absent, and arranged the drawings in sequential order to the extent that they were not previously in sequential order.

The computer translations of examined JPP 08-031819, Japanese Patent 3399019, and unexamined JPPs 08-116275, 09-148944, and 09-153845 are somewhat coarse. For instance, the computer-translated English grammar is often rough. Also, superscripting and subscripting was lost in the translation process. Nevertheless, these computer translations should facilitate understanding JPPs 02-215236, 06-334692, 08-116275, 09-148944, and 09-153845. As provided by the JPO in its comments on the computer translations into English, a group of four consecutive asterisks (\*\*\*\*) identifies material that could not be translated into English.

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Also, U.S. Patent 5,859,861 cited in the 8 January 2002 IDS is the U.S. equivalent of German Patent Publication DE 19626076 A1.

As far as Attorney for Applicant(s) can determine, no document listed in the accompanying substitute PTO form 1449 is more material to the present invention than the prior art already of record. In particular, no so-listed document appears to impact the patentability of any claim allowed in the present application. The same comments apply to the German and Japanese documents dealt with above. Accordingly, please place this letter and the enclosures in the PTO file for the present application.

**EXPRESS MAIL LABEL NO.:**

**EV 500 310 553 US**

Respectfully submitted,

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Applicant(s)		Confirmation No.	
Substitute PTO Form 1449				Sallaway et al.		3400	
				Filing Date		Group	
				28 April 2000		2637	
U.S. Patent Documents							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
Foreign Patent Documents							
							Translation
		Document	Date	Country	Class	Subclass	Yes No
	AH						
	AI						
	AJ						
	AK						
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AL	Lin et al. <u>Error Control Coding: Fundamentals and Applications</u> (Prentice-Hall), 1983, pp. 315 - 349					
	AM	Hagenauer et al. "A Viterbi Algorithm with Soft-Decision Outputs and its Applications", Procs. GLOBECOM '89, Nov. 1989, pp. 1680 -1686					
	AN	Raheli et al., "Per-Survivor Processing: A General Approach to MLSE in Uncertain Environments," <u>IEEE Trans. Comm.</u> , Feb./Mar./Apr 1995, pp. 354 - 364					
	AO	Ungerboeck, "Trellis-Coded Modulation with Redundant Signal Sets, Part I: Introduction", <u>IEEE Communications Mag.</u> , Feb. 1987, pp. 5 - 11					
	AP	Ungerboeck "Trellis-Coded Modulation with Redundant Signal Sets, Part II: State of the Art", <u>IEEE Communications Mag.</u> , Feb. 1987, pp. 12 - 21					
	AQ	Viterbi, "Error Bounds for Convolutional Codes and an Asymptotically Optimum Decoding Algorithm", <u>IEEE Trans. Info. Theory</u> , Apr. 1967, pp. 260 - 269					
	AR						
Examiner			Date Considered				
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.</p>							